



/MA/ 11/17/2010

CLEAN VERSION

Attorney Reference No. GNE-0269 (P1982R1)

COMPOSITIONS AND METHODS FOR THE TREATMENT OF IMMUNE RELATED DISEASES

5

Field of the Invention

The present invention relates to compositions and methods useful for the diagnosis and treatment of immune related diseases.

10

Computer Program Listing Appendix

This application contains an appendix consisting of a computer program listing over 300 lines. In accordance with 37 CFR 1.96(c), a computer program listing having over 300 lines must be submitted on a compact disc conforming to the standards set forth in 37 CFR 1.52(e). Two identical compact discs have been filed with the Patent & Trademark Office in accordance with Title 37 of the Code of Federal Regulations and each compact disc contains a single file entitled, "Table 1. ALIGN-2 program source code.doc". The material on the compact discs and the computer program listing appendix is hereby incorporated-by-reference.

20

Background of the Invention

Immune related and inflammatory diseases are the manifestation or consequence of fairly complex, often multiple interconnected biological pathways which in normal physiology are critical to respond to insult or injury, initiate repair from insult or injury, and mount innate and acquired defense against foreign organisms. Disease or pathology occurs when these normal physiological pathways cause additional insult or injury either as directly related to the intensity of the response, as a consequence of abnormal regulation or excessive stimulation, as a reaction to self, or as a combination of these.

Though the genesis of these diseases often involves multistep pathways and often multiple different biological systems/pathways, intervention at critical points in one or more of these pathways can have an ameliorative or therapeutic effect. Therapeutic intervention can occur by either antagonism of a detrimental process/pathway or stimulation of a beneficial process/pathway.

Many immune related diseases are known and have been extensively studied. Such diseases include immune-mediated inflammatory diseases, non-immune-mediated